

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today  
(1) was not written for publication in a law journal and  
(2) is not binding precedent of the Board.

Paper No. 28

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte REINHARD BUHL and WILFRIED LUSTIG

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Appeal No. 1998-0328  
Application 08/383,251<sup>1</sup>

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HEARD: Oct. 6, 1999

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Before McCANDLISH, Senior Administrative Patent Judge, ABRAMS  
and GONZALES, Administrative Patent Judges.

McCANDLISH, Senior Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the examiner's final  
rejection of claims 1 through 5 and 7 through 14. No other  
claims are pending in the application.

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<sup>1</sup> Application for patent filed February 3, 1995.

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The subject matter here claimed is a "[m]etallic ball pin of a universal joint for motor vehicles" (claim 1, line 1). The ball pin comprises a machined joint ball (2) and a pin stump (1). The pin stump is formed with a fastening pin (4) received in a hole or bore (5) formed through the ball. The ball is non-rotatably mounted on the fastening pin and is also confined against axial movement on the fastening pin. All of the independent claims on appeal, namely claims 1 and 14, recite that the fastening pin is "formed by cold forming in a direction of a longitudinal axis of said pin stump."

A copy of the appealed claims is appended to appellants' brief.

The following references are relied upon by the examiner as evidence of obviousness in support of his rejections under 35 U.S.C. § 103:

Mitchell et al. (Mitchell) (Canadian)	535,813	Jan. 15, 1957
Latzen (German)	928,987 <sup>2</sup>	Jun. 27, 1957
Lemforder (British)	1,020,671	Feb. 23, 1966

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<sup>2</sup>Translation attached.

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The examiner has additionally cited the following references on page 3 of the answer to show that corrosion protection of ball joints is known in the art:

Bokros	4,131,957	Jan. 2, 1979
Harris et al.	5,560,103	Oct. 1, 1996
(Harris)	(filed effective August 26, 1992)	

The examiner has also cited the following references on page 3 of the answer "[a]s concerns the process of 'cold forming/cold working' members of a ball joint":

Crook, Jr. (Crook)	3,825,356	Jul. 23, 1974
Theobald	4,463,590	Aug. 7, 1984
Theobald	4,543,812	Oct. 1, 1985
Gallagher, Jr.	5,453,139	Sep. 26, 1995
(Gallagher)	(filed Jul. 15, 1994)	

Claims 1 through 5 and 7 through 11 stand rejected under 35 U.S.C. § 103 as being unpatentable over the Canadian Mitchell reference in view of the German Latzen reference, and claims 12 through 14 stand rejected under 35 U.S.C. § 103 as being unpatentable over British Lemforder reference in view of the Mitchell reference. Reference is made to the examiner's answer for details of these rejections.

We cannot sustain any of these rejections. Both of the independent claims on appeal recite that "said pin stump [is] non-rotatably joined to said machined joint ball by

deformation of a portion of said fastening pin" (emphasis added).<sup>3</sup> Contrary to our understanding of the interpretation proposed by appellants' counsel at oral hearing, the plain unambiguous language of this claim limitation provides that the deformation of claimed portion of the fastening pin non-rotatably attaches or, to use appellants' words, non-rotatably joins the pin stump to the ball. This structure is not taught or suggested by any of the applied references.

In the Mitchell reference, the pin member (25), which corresponds to appellants' pin stump, is non-rotatably attached to the ball (12) by engagement of the non-circular pin section (29) with the mating aperture in the upper end of the ball as seen from Figures 7 and 8 of the Mitchell drawings. Thus, Mitchell's pin member is not non-rotatably attached to the ball by deformation of any part of the pin member.

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<sup>3</sup> Although not illustrated in the application drawings, this limitation is recited verbatim in original claim 1 as filed. Therefore, there is support for this limitation to satisfy the description requirement in the first paragraph of 35 U.S.C.

§ 112. See In re Anderson, 471 F.2d 1237, 1238-1239, 176 USPQ 331, 332 (CCPA 1973), Ex parte Porter, 25 USPQ2d 1144, 1146 (Bd. Pat. App. & Int. 1992) and the Manual of Patent Examining Procedure § 608.01 (7<sup>th</sup> Ed. July, 1998).

In the British reference, the pivot pin (6), which corresponds to appellants' pin stump, is non-rotatably attached to the ball (2) by engagement of tapered or frustoconical surfaces on the end (5) of the pin and the bore (4) in the ball. Thus, the non-rotatable attachment of the pin to the ball is not accomplished by deformation of any part of the pin.

Furthermore, according to the evidence presented by appellants (see page 672 in volume 12 of the Encyclopedia Britannica), cold working alters the grain structure of the metal to produce a finer grained metal. Thus, there is unchallenged evidence that cold working structurally alters the pin stump to distinguish the resulting product from the prior art. The method limitation of cold forming the pin stump must therefore be given weight in determining the patentability of the appealed claims under the holding in In re Hallman, 655 F.2d 212, 215, 210 USPQ 609, 611 (CCPA 1981).

None of the applied references, namely the Mitchell, German and British references, teaches or suggests the concept of cold forming a pin stump as called for in the appealed claims. The Mitchell reference does state that the pin member

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is forged (see column 3, line 46 of the Mitchell specification), but does not indicate whether the pin member is hot forged or cold forged.

We are not unmindful of the citation of the Crook, Theobald and Gallagher references for the first time in the examiner's answer to support his position that cold forming is "well known" in the ball and socket joint art as set forth in the paragraph bridging pages 6 and 7 of the answer. Apart from the fact that this appears to be a new position presented for the first time in the answer and apart from the fact that the examiner has failed to specifically refer to the Theobald and Gallagher references, the examiner should have included these additional references in the statements of the rejections if he intended to rely upon them in support of his position of obviousness. See In re Hoch, 428 F.2d 1341, 1342 n.3, 166 USPQ 406, 407 n.3 (CCPA 1970). For our review of the standing rejections we shall therefore confine ourselves to the prior art set forth in the statements of the rejections.

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For the foregoing reasons, the examiner's decision  
rejecting appealed claims 1 through 5 and 7 through 14 is  
reversed.

REVERSED

	Harrison E. McCandlish, Senior	)	
	Administrative Patent Judge	)	
		)	
		)	
		)	
	Neal E. Abrams	)	BOARD OF
PATENT	Administrative Patent Judge	)	APPEALS AND
		)	INTERFERENCES
		)	
		)	
	John F. Gonzales	)	
	Administrative Patent Judge	)	

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